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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/833,460	04/11/2001	Byeong Moon Jeong	B-1537	3305

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EXAMINER

YOON, TAE H

ART UNIT	PAPER NUMBER
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1714

DATE MAILED: 08/05/2003

11

Please find below and/or attached an Office communication concerning this application or proceeding.

AS-11

Application No.

Applicant(s)

09/833,460

JEONG ET AL

Office Action Summary

Examiner

Art Unit

Tae H Yoon

1714

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on 10 June 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☐ Claim(s) 1-31 is/are pending in the application.
- 4a) Of the above claim(s) 18-30 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-17 and 31 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
a) ☐ The translation of the foreign language provisional application has been supplied.

1) ☒ Notice of References Cited in this Office Action

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s): 2, 4-6

4) ☐ Interview Summary (PTO-413) Paper No(s): \_\_\_\_\_

5) ☐ Notice of Informal Patent Application (PTO-150)

6) ☐ Other \_\_\_\_\_

The following is a quotation of the second paragraph of 35 U.S.C. 112:

Claims 3-6 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The recited molecular weight is indefinite in not specifying a particular average molecular weight such as a number average molecular weight or weight average molecular weight since they are different from each other for a given polymer. See table 1 of US pat. 6,007,845.

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(c) the invention was described in (1) an application for patent published under section 122(b) by

351(a) shall have the effects for purposes of this subsection of an application filed in the United States

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only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-12, 14-17 and 31 are rejected under 35 U.S.C. 102(e) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Domb et al (US 6,007,845).

Domb et al teach nanoparticles of the instant  $A_n(B)$  block copolymer of a polyethylene glycol (PEG) block and a biodegradable polyester block in Fig. 2a and 2g. The instant molecular weights of PEG are taught at col. 3, lines 60-61 and examples. Table 1 shows molecular weights of said block copolymer and the instantly recited molecular weights of a biodegradable polyester block are inherent thereof as evidenced by example 13 wherein a polycaprolactone having Mw of 3,000 is seen. Various polyesters are taught at col. 3, lines 61-62. Dispersion or suspension of said nanoparticles in water is taught at col. 7, lines 51-52 and col. 13, lines 36-38. Incorporation of bioactive agents such as a cell or a peptide is also taught at col. 11, line 36 to col. 12, lines 25. Thus, the instant invention lacks novelty.

Claims 1-17 and 31 are rejected under 35 U.S.C. 103(a) as being unpatentable

The instant invention further recites particular anti-cancer agents such as taxol and biodegradable polyester blocks such as poly( $\gamma$ -butyrolactone) over Domb et al.

However, said anti-cancer agents such as taxol are well known as taught by Prokop ([0061]) and Cha et al (col. 9, line 38 to col. 10, line 23). Also, various biodegradable polyester blocks such as poly( $\gamma$ -butyrolactone) are well known as taught by Cha et al (col. 7, lines 39-48).

It would have been obvious to one skilled in the art at the time of invention to utilize taxol of Prokop or adriamycin of Cha et al or poly( $\gamma$ -butyrolactone) of Cha et al in Domb et al since Domb et al teach employing various bioactive agents and various biodegradable polyester blocks.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tae H Yoon whose telephone number is (703) 308-2389. The examiner can normally be reached on Mon-Thu.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vasu Jagannathan can be reached on (703) 306-2777. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9310 for regular communications and (703) 872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the reception at (703) 308-7777.

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Tae H Yoon  
Primary Examiner  
Art Unit 1714

THY  
July 29, 2003

